

Otaku manga shop

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JAVA

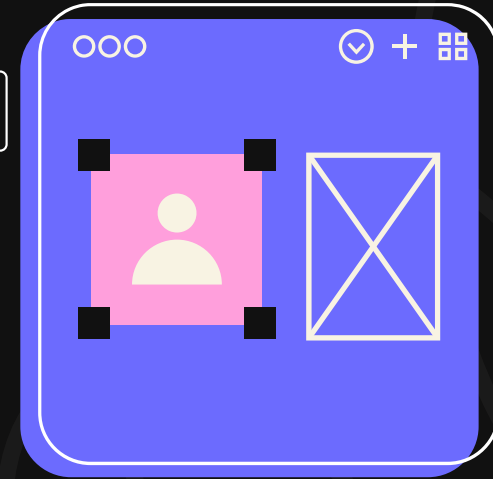


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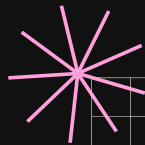
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Introduction

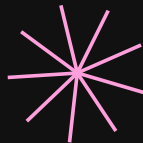
"Otaku Manga" isn't just an online store—it's a meticulously crafted Java-based project that immerses us in the fascinating world of software design patterns. This presentation will present use of design patterns in our project.



About project



The "Otaku Manga" online shop project is a Java-based application designed to provide a user-friendly platform for purchasing Japanese Comic Books. This project serves as an educational exercise in software design patterns, particularly focusing on the implementation of the Strategy, Observer, Decorator, Singleton, State, Command, Memento and Facade patterns.



Project structure:

- Homepage: Navigation buttons and user interface elements.
- Product catalog: Categories, products, and Singleton pattern implementation.
- Shopping Cart: Decorator pattern for enhancing selected products.
- Payment Method: Strategy pattern for flexible payment options.
- Order Status: Observer and State patterns for real-time updates.
- Order History: Memento pattern for viewing previous orders.
- Order Confirmation: Observer and State patterns for order delivery confirmation.
- Save Order To Txt File: Command pattern for saving orders to a text file.
- Facade Pattern: Simplifying user interactions through a Facade.



Patterns

Strategy Pattern



- Implementation Details: Payment method selection.
- Use in the Project: Flexibility in choosing Credit Card, PayPal, or WebMoney.



Decorator Pattern

- Implementation Details: Enhancing shopping cart items with options.
- Use in the Project: Adding packaging, express delivery, and discounts.

Observer Pattern



- Implementation Details: Real-time updates on order progress.
- Use in the Project: Keeping users informed about the status of their orders.



Singleton Pattern

- Implementation Details: Single instance of the shopping cart.
- Use in the Project: Ensuring only one shopping cart instance throughout the application.

Patterns

State Pattern



- Implementation Details: Managing order status.
- Use in the Project: Setting status to "IN PROCESSING" and updating to "SENT" and "DELIVERED."

Facade Pattern



- Implementation Details: Simplifying user interactions with the online shop.
- Use in the Project: Providing an easy way to add products, process payments, and view order history.

Memento Pattern



- Implementation Details: Saving and retrieving order history.
- Use in the Project: Displaying the last ordered product.

Command Pattern

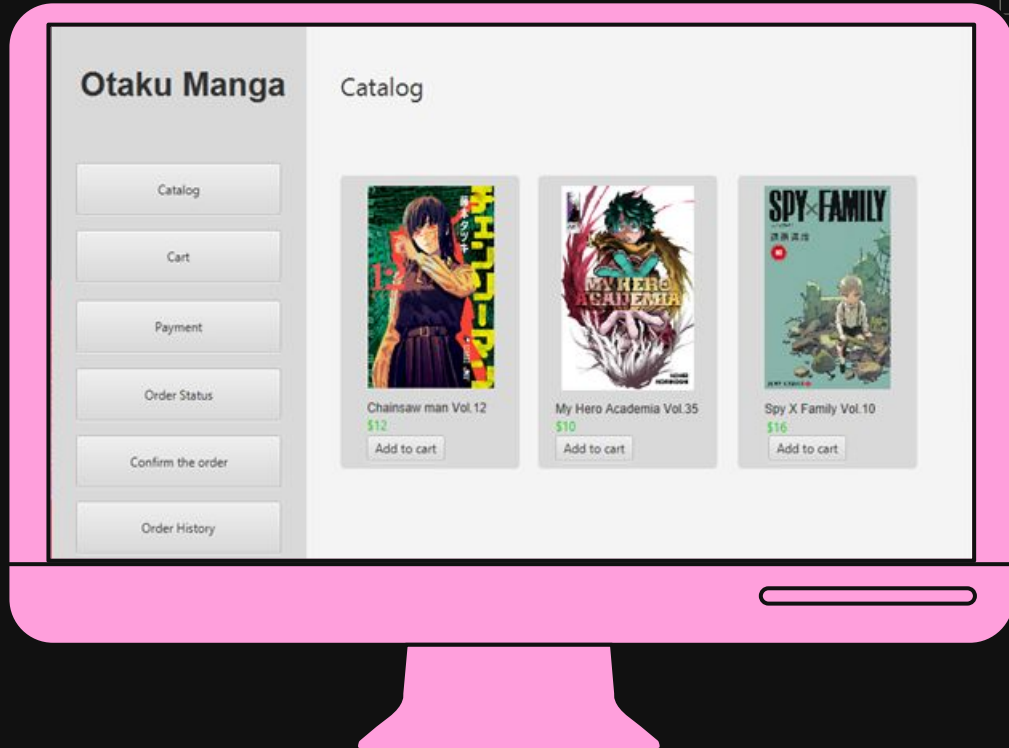


- Implementation Details: Saving orders to a text file.
- Use in the Project: Executing the "Save to Text File" feature for order history.

Interface

Details:

- Utilizing JavaFX framework.
- User-friendly experience for customers.
- Seamless interaction between design patterns.

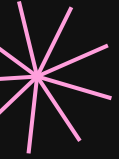




Conclusion

By successfully integrating various design patterns and creating a user-friendly interface, the "Otaku Manga" online shop project has become a well-designed Java application that provides an efficient platform for purchasing Japanese Comic Books. The seamless integration of design patterns has enhanced the overall functionality and aesthetic appeal of the application, offering a valuable learning experience in software design and development.





**THANK YOU
FOR YOUR
ATTENTION**

